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A new species and additional records of the genus *Lathrobium* Gravenhorst, 1802 from Palaearctic region (Coleoptera: Staphylinidae: Paederinae)

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A new species and additional records of the genus *Lathrobium* Gravenhorst, 1802 from Palaearctic region (Coleoptera: Staphylinidae: Paederinae). - *Lathrobium matalini* sp. n. from southern Kazakhstan is described, illustrated and distinguished from related congeners. Additional records of 18 *Lathrobium* species, among them four new country records, are reported from Azerbaijan, Iraq, Kazakhstan, Russia and Turkey.

Keywords: Coleoptera - Asia - Europe - new species - new records.

INTRODUCTION

The *Lathrobium* Gravenhorst, 1802 is one of the largest genera of the subfamily Paederinae. According to the Palaearctic catalogue (Smetana, 2004) and recent contributions (Assing, 2007a, b, c, 2008, 2009; Shavrin, 2007; Watanabe, 2008; Ryvkin, 2011; Peng *et al.*, 2012) to the genus, *Lathrobium* is represented in the Palaearctic region by more than 260 valid (sub-) species. 12 species of *Lathrobium* are known from Kazakhstan, two of which have been reported only from this country (Assing, 2008, 2009). In Turkey, 16 species have been recorded, five of them endemic (Anlaş, 2009). More than 50 species are known from Russia and three species have been recorded from Azerbaijan. No *Lathrobium* species have been reported from Iraq up to now (Smetana, 2004).

Lathrobium species occur in many terrestrial places, most often in leaf litter, under stones, as well as near river banks and lakeshores. In view of the previous taxonomic confusion in the genus, many synonymies were established. Thus, many literature records must be considered doubtful. In generally, *Lathrobium* species are highly variable regarding many external characters (e.g. body size, relative density of puncturation, microsculpture), even in specimens from the same locality. One of the main reasons for the high degree of synonymy is an underestimation of intraspecific variation. Especially the widespread species were found to be extremely variable. According to Assing (2007b), the morphology of the male sexual characters, however, is remarkably diverse and consequently of high taxonomic significance. For that reason, the species of *Lathrobium* are readily distinguished by the highly distinctive shape of the aedeagus. But, on the contrary, in some groups females of *Lathrobium*

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species have good characters, thus the female sexual characters could be used for identification.

The present paper is based on an examination of material of the genus *Lathrobium* from Kazakhstan, Azerbaijan, Iraq, Russia and Turkey, including one species new to science and some records of zoogeographic interest. *Lathrobium bernhaueri* Koch, 1937 and *L. elongatum* (Linnaeus, 1767) are reported from Azerbaijan, *L. brunnipes* (Fabricius, 1793) from Turkey, and *L. furcatum* Czwalina, 1888 from Iraq for the first time.

MATERIAL, METHODS, AND DEPOSITORIES

The material referred to in this study is deposited in the following collections:

cAnl author's private collection

cKha private collection of Eduard Khachikov, Rostov-on-Don, Russia

The following abbreviations are used for the measurements, which are given in mm:

AL length of antenna; AW maximal width of abdomen; EL length of elytra from apex of scutellum to posterior margin; EW combined width of elytra; HL head length from anterior margin of clypeus to posterior margin of head; HW head width (including eyes); ML length of aedeagus from apex of ventral process to base; PL length of pronotum along median line; PW maximal width of pronotum; TL total body length.

RESULTS

Lathrobium bernhaueri Koch, 1937

MATERIAL STUDIED: 1♂, AZERBAIJAN, Lankaran, environs Dashytuk and Apo vill., 16.VI.2007, leg. Kasatkin (cAnl).

DISTRIBUTION: According to Smetana (2004), the known distribution of *L. bernhaueri* is confined to Georgia, South European territory of Russia, and Turkey. This species is here recorded from Azerbaijan for the first time.

Lathrobium brunnipes (Fabricius, 1793)

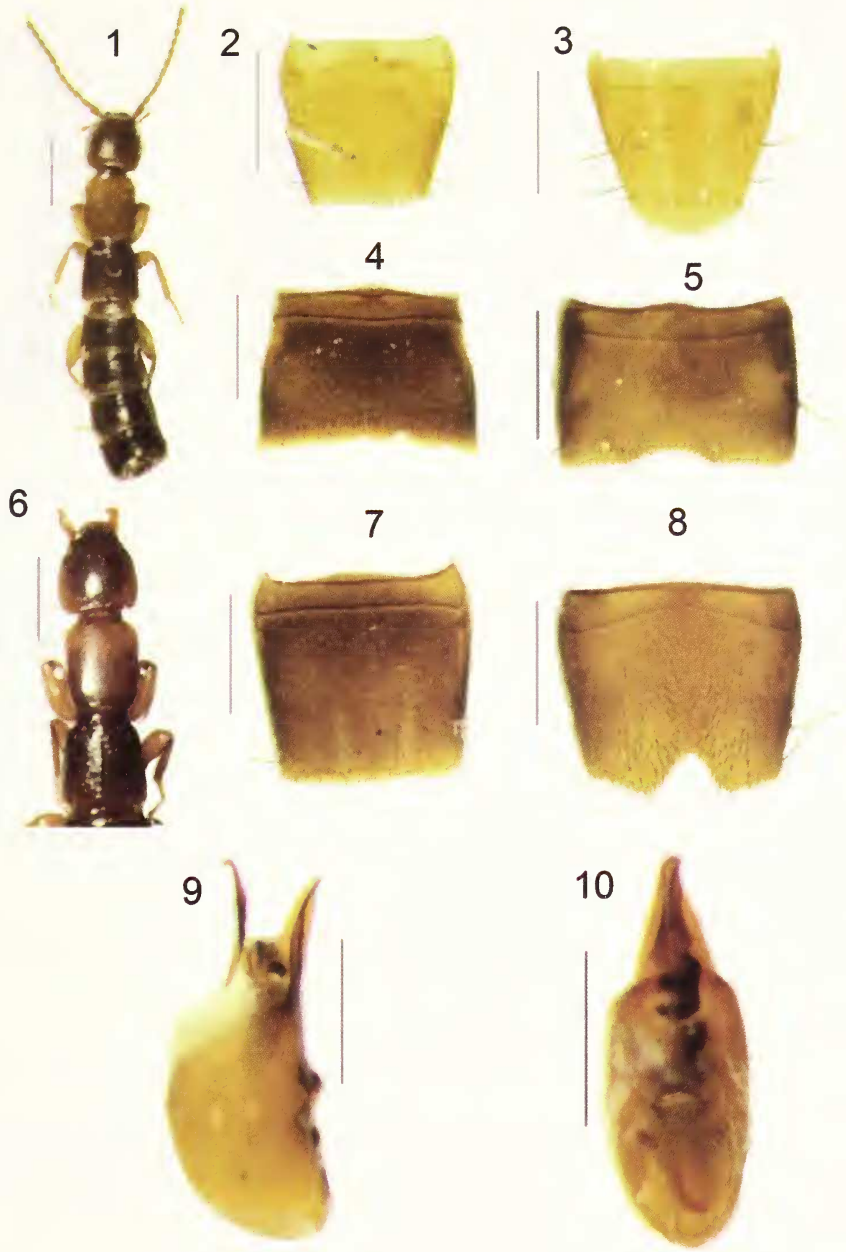
MATERIAL STUDIED: 1♂, RUSSIA, Rostov region, Veshenskaya vill., 05.IX.1999, leg Khachikov (cAnl). – 1♀ 1♂, TURKEY, Trabzon province, Maçka, Sümela Manastırı 3 km NW, 14.V.2011, leg Anlaş & Özgen (cAnl).

DISTRIBUTION: *L. brunnipes* is widespread in Europe, European part of Russia, Crimea, Caucasus, Ural, Kazakhstan, Siberia and Far East (Smetana, 2004; Shavrin, 2007; Assing, 2009). This species is here reported from Turkey for the first time.

Lathrobium caspicum Koch, 1938 Fig. 11

MATERIAL STUDIED: 1♂, AZERBAIJAN, Astara, Motlayatag vill., 2-6.VI.2006, leg. Snegovaya (cAnl).

DISTRIBUTION: This species is known from only Azerbaijan and Iran (Smetana, 2004; Assing, 2009).



FIGS 1-10

Lathrobium matalini n. sp. (1) Habitus. (2) Female tergite VIII. (3) Female sternite VIII. (4) Male tergite VII. (5) Male sternite VIII. (6) Forebody. (7) Male tergite VIII. (8) Male sternite VIII. (9) Aedeagus, lateral view. (10) Aedeagus, ventral view. Scale bars: 1.0 mm (1 and 2); 0.5 mm (2-5 and 7-10).

Lathrobium dimidiatipenne Bernhauer, 1910

MATERIAL STUDIED: 1♂, RUSSIA, Rostov region, Sholokhovskii distr., Elanskaya vill., 23.VII.2002, leg Khachikov (cAnl). – 2♂, RUSSIA, Krasnodar province, Anopsky distr., B. Utrish vill., 28.VIII.2006, 1♂, same data but 17-22.VIII.2008, leg. Khachikov (cAnl; cKha).

DISTRIBUTION: This species is known from Ukraine, South European territory of Russia, Russian Far East, East Siberia, Kazakhstan, Mongolia and Turkey (Smetana, 2004; Assing, 2009).

Lathrobium elongatum (Linnaeus, 1767) Fig. 12

MATERIAL STUDIED: 1♂, AZERBAIJAN, northwestern Azerbaijan, Ismailinsky Nat. Reserv., Valyasin vill., 26.VI.2003, leg. Nabozhenko (cAnl). – 1♀ 1♂, RUSSIA, Rostov region, Krivyansky vill., 02.V.1997, leg. Shokhin (cAnl, cKha). – 1♂, TURKEY, Osmaniye province, Bahçe, Inderesi 2 km NW, 980 m 37°15'55"N, 36°37'04"E, 15.XI.2010, leg. Anlaş (cAnl).

DISTRIBUTION: Europe, European part of Russia, Iran, Turkey, Kazakhstan, Siberia (Smetana, 2004; Shavrin, 2007). In Turkey, the exact locality of this species has not been cited by previous studies (Smetana, 2004; Anlaş, 2009). *L. elongatum* is recorded from Azerbaijan for the first time.

Lathrobium eppelsheimi Czwalina, 1888 Fig. 13

MATERIAL STUDIED: 1♂, RUSSIA, Krasnodar province, Apsheronsk distr., Mezmai vill., 16.VIII.1992, leg Khachikov (cAnl). – 1♂, RUSSIA, Krasnodar province, Maikop distr., Nikel vill., 20.VII.1984, leg Khachikov (cAnl).

DISTRIBUTION: This species is endemic in northwestern Caucasus region (Solodovnikov, 2001; Smetana, 2004).

Lathrobium flavipes Stephens, 1833

MATERIAL STUDIED: 1♂, RUSSIA, Rostov region, Ust-Donetsk distr., Krymsky vill., 02.V.1997, leg Khachikov (cAnl). – 1♂, RUSSIA, Rostov region, Romanovskaya vill., 19.VIII.1989, leg Shkuratov (cAnl).

DISTRIBUTION: This species is known from Central and South European territory of Russia, Siberia, Ukraine and Kazakhstan (Smetana, 2004; Assing, 2009).

Lathrobium fovulum Stephens, 1833

MATERIAL STUDIED: 1♂, RUSSIA, Rostov region, Veshenskaya vill., 17-22.VII.1999, leg. Khachikov (cAnl).

DISTRIBUTION: According to Smetana (2004) and Assing (2009), the distribution of *L. fovulum* ranges from Western Europe eastwards to West Siberia and also Kazakhstan.

Lathrobium fulvipenne (Gravenhorst, 1806)

MATERIAL STUDIED: 1♂, RUSSIA, Rostov region, Veshenskaya vill., 17-22.VII.1999, leg Khachikov (cAnl). – 1♂, TURKEY, Gümüşhane, Torul, Kadırga Yaylası road, 2037 m, 40°41'00"N, 39°24'30"E, 14.V.2011, leg. Anlaş (cAnl).

DISTRIBUTION: This widespread species was previously known only from few localities in Turkey and Russia (Smetana, 2004; Anlaş, 2009; Assing, 2009).

FIGS 11-14

Aedeagi, lateral views. (11) *Lathrobium caspicum* Koch. (12) *L. elongatum* (Linnaeus). (13) *L. eppelsheimi* Czwalina. (14) *L. marani* Koch. Scale bars: 1.0 mm (11-14).

Lathrobium furcatum Czwalina, 1888

MATERIAL STUDIED: 1♂, IRAQ, northern Iraq, ca 10 km NW Suleimaniyah province, 17-20.V.2008, leg. Sevinç (cAnl). – 2♂, TURKEY, Erzincan, Üzümlü, Küçük Sarıkaya creek bank, 1713 m, 39°14'20"N, 39°50'02"E, 18.V.2011, leg. Anlaş, Özgen & Khachikov.

DISTRIBUTION: *L. furcatum* is widespread from Turkey, Iran and Caucasus region across Balkans into the southeast of Central Europe (Smetana, 2004; Assing, 2009; Anlaş *et al.*, 2011). But the exact locality of this species has not been cited from Turkey by previous studies (Coiffait, 1982; Smetana, 2004; Anlaş, 2009). The species is here reported from Iraq for the first time.

Lathrobium geminum Kraatz, 1857

MATERIAL STUDIED: 1♂, RUSSIA, Rostov region, Ust-Donetsk distr., Razdorskaya vill., 01.VIII.1994, leg Khachikov (cAnl).

DISTRIBUTION: According to Smetana (2004) and Assing (2009), the known distribution of *L. geminum* is confined to Europe, European part of Russia, Caucasus, East and West Siberia, Kazakhstan, Turkmenistan and Uzbekistan.

Lathrobium impressum Heer, 1841

MATERIAL STUDIED: 2♂, exs., RUSSIA, Rostov region, Veshenskaya vill., 16-22.VII.1995, leg Khachikov (cAnl).

DISTRIBUTION: This species widespread in Europe and Siberia (Smetana, 2004).

Lathrobium longulum Koch, 1937

MATERIAL STUDIED: 1♂, RUSSIA, Rostov region, Rostov-on-Don city., 05.V.1991, leg Khachikov (cAnl).

DISTRIBUTION: According to Shavrin (2007) and Assing (2009), *L. longulum* is known from north and central Europe, European part of Russia, Crimea, Caucasus, Siberia, Russian Far East, Kazakhstan and Mongolia.

Lathrobium marani Koch, 1939

MATERIAL STUDIED: 1♂, KAZAKHSTAN, Yuzhno-Kazakhistan region, Boralday range, Satur mts, hole of the Kulan nv., high Krasnye Vorota pass, 1000 m, 42°35'13"N,70°26'53"E, 05.IV.2010, leg. Matalin. – 1♂, KAZAKHSTAN, Yuzhno-Kazakhistan region, South bank of Kyzylkol lake, right bank Ushbas riv., near mouth 1200 m, 43°43'56"N, 69°30'48"E, 31.III.2010, leg. Matalin.

DISTRIBUTION: The known distribution of *L. marani* is confined to Kazakhstan, Tajikistan, and Kyrgyzstan (Smetana 2004; Assing, 2009). Due to misleading illus - trations of the aedeagus of *L. marani* in Coiffait (1982), it has been given a more accurate figure of the aedeagus in Fig. 14.

Lathrobium pallidipenne Hochhuth, 1851

MATERIAL STUDIED: 1♂, RUSSIA, Rostov region, Aleksandrovskyi forestr, 16.X.1989, leg. Arzanov (cAnl). – 4♀ 2♂, TURKEY, Northeastern Anatolia, 15 km N Gümüşhane province, Cehennem Valley, Manastır road, 15.V.2011, leg. Anlaş, Khachikov & Özgen (cAnl).

DISTRIBUTION: The known distribution of *L. pallidipenne* is confined to Europe, and Turkey (Smetana 2004). In Turkey, this species was known only one locality in Eskişehir province of central Anatolia (Anlaş, 2009).

Lathrobium pallidum Nordmann, 1837

MATERIAL STUDIED: 1♂, RUSSIA, Rostov region, Donskoi forestry (=Donieschoz), 01.VI.1996, leg Khachikov (cAnl).

DISTRIBUTION: This species is known from Europe including South European territory of Russia (Smetana, 2004).

Lathrobium vitalyi Assing, 2008

MATERIAL STUDIED: 1♂, KAZAKHSTAN, Yuzhno-Kazakhstan region (southern Kazakhstan), Taskara mountains, 1100-1200 m, 2,5 km SW Novonikolaevka village (=Jabagly), 42°24'49"N, 70°27'23"E, 24.III.2010, leg. Makarov & Matalin (cAnl).

DISTRIBUTION: This recently described species was previously known from only its type locality in southern Kazakhstan (Assing, 2008).

Lathrobium wrasei Schülke, 1990

MATERIAL STUDIED: 1♀ 1♂, TURKEY, Konya province, Beysehir, Çamlık, Devrend, 13.VII.2010, leg. Kunt (cAnl).

DISTRIBUTION: The species had been known from Georgia (Schülke, 1990). In Turkey, a recent record of this species was known only from Antalya province (Anlaş & Rose, 2009).

Lathrobium matalini sp. n. (Figs 1-10)

HOLOTYPE: ♂, KAZAKHSTAN, "KZ. Yuzhno-Kazakhstan region, south bank of Kyzylkol lake, right bank Ushbas riv., near mouth 1200 m, 43°43'56"N, 69°30'48"E, 31.III.2010, leg. Matalin / Holotypus ♂, *Lathrobium matalini* sp. n. det. S. Anlaş 2011" (cAnl).

PARATYPES: 1♀, same data as holotype (cAnl). – 1♂, KAZAKHSTAN, Yuzhno-Kazakhstan region, Arystandi riv., upstream, 7,5 NNE of Shaklak mount., 400 m, 43°15'17"N, 69°26'30"E, 24-30.III.2010, leg. Matalin (cKha).

ETYMOLOGY: The species is dedicated to Dr. A. V. Matalin, Russia, a specialist on Coleoptera, Carabidae, who collected the new species.

DESCRIPTION: Measurements (in mm) and ratios (range; n=3): AL: 2.08-2.22; HL: 0.84-1.01; HW: 0.80-0.92; PL: 0.90-1.12; PW: 0.72-0.85; EL: 0.88-1.00; EW: 0.81-0.92; AW: 0.96-1.08; ML: 1.00-1.05 (n=2); TL: 6.9-7.1; HL/HW: 1.05-1.10; PW/HW: 0.90-0.92; PW/PL: 0.80-0.82; EL/PL: 0.89-0.98; EW/PW: 1.08-1.13; EL/EW: 1.09; AW/EW: 1.17-1.19.

Habitus as in Fig. 1. Species of moderate size (see measurements). Coloration: head reddish brown, pronotum reddish, elytra blackish but posterior margin of elytra dark brown, abdomen black, antennae reddish yellow, legs yellowish.

Head slightly oblong (see measurements, ratio HL/HW and Figs 1, 6); eyes moderately small (Fig. 6), approximately 1/4 the length of postocular region in dorsal view; punctation distinct, but not very coarse, moderately sparse; punctation in central dorsal region even wider and larger, surface with distinct; interstices in lateral dorsal areas approximately twice as wide as diameter of punctures, antennae relatively long; antennomere III longer than II; antennomeres IV-X almost 1,5 times longer than wide; antennomere XI almost twice as long as wide (Fig. 1).

Pronotum narrower than head (see ratio PW/HW, Figs 1, 6) and distinctly oblong (see ratio PW/PL and Figs 1, 6); lateral margins subparallel in dorsal view; punctation slightly coarser than that of head; interstices on average approximately 1.5 times as wide as diameter of punctures; microsculpture absent.

Elytra shorter than pronotum (see ratio EL/PL, Figs 1, 6); and approximately 1.1 times as wide (see ratio EL/EW, Figs 1, 6); puncturation well-defined, punctation finer, shallower, denser, and less defined than that of pronotum. Hind wings reduced.

Abdomen wider than elytra (see ratio AW/EW, Figs. 1, 6); puncturation fine and moderately dense; microsculpture shallow, microsculpture present, but very shallow; posterior margin of tergite VII without palisade fringe.

♂: sternite VII modified (Fig. 5), posterior margin moderately concave in the middle, with black modified setae; sternite VIII shaped as in Fig. 8, posterior margin concave, in the middle with cluster of black modified setae, posterior margin in the middle with broadly V-shaped excision; aedeagus distinctive especially in lateral view and weakly asymmetric ventral process (Figs 9, 10).

♀: female tergite and sternite VIII as Figs 2 and 3.

COMPARATIVE NOTES: The new species is readily distinguished from all its congeners by the characteristic shape of the aedeagus, in particular the shape of the lateral process, and the modifications of the male sternites VII and VIII. From other congeners recorded from Middle Asia and adjacent regions, and with similarly short elytra and reduced hind wings, it is additionally separated as follows:

- from *L.kastcheevi* Assing, 2009 (southern Kazakhstan) by the different colo - ration (in *L. kastcheevi*; head, pronotum, and abdomen blackish; elytra reddish, anterior third distinctly infuscate);

- from *L. vitalyi* Assing, 2008 (southern Kazakhstan) by the different coloration of the elytra (*L. vitalyi* elytra reddish);

- from *L. lackneri* Assing, 2009 (southern Kyrgyzstan) by the different coloration (in *L. lackneri* body black, with elytra dark reddish brown);

- from *L caspicum* Koch, 1938 (Azerbaijan and Iran) by the different coloration (in *L. caspicum* head and pronotum black, elytra bicoloured, with the anterior half black and the posterior half reddish);

- from *L. marani* Koch, 1939 (Kazakhstan, Tajikistan, and Kyrgyzstan) by its smaller size and the reddish pronotum (in *L. marani* black);

- from *L. bucharense* Koch, 1944 (Uzbekistan) by the reddish pronotum (in *L. bucharense* blackish); from *L. kuntzeni* Koch, 1939 (Uzbekistan, Iran) by the different coloration (*L. kuntzeni* pronotum black with blueish hue, apex of abdomen reddish);

- from *L. concolor* Motschulsky, 1860 (Uzbekistan, Mongolia, Russian Far East) by smaller size;

- from *L. semirufulum* Bernhauer, 1902 (Kazakhstan, Tajikistan) by its larger size (*L. semirufulum*: approximately 5-5.5 mm) and by completely dark coloration of the abdomen (in *L. semirufulum* apex of abdomen reddish), for illustrations of the aedeagus of *L. semirufulum* see Coiffait (1982: in figs 83C, D); according to Gusarov (1995), these figures refer to *L. semirufulum*, not to *Lobrathium sahlbergi* (Fauvel, 1900), as indicated by Coiffait (1982) (see Assing, 2007b).

DISTRIBUTION: The species was collected in two localities in southern Kazakhstan, in bank of Kyzylkol lake and bank of Arystandi river. It seems most likely that, this species has a restricted distribution.

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